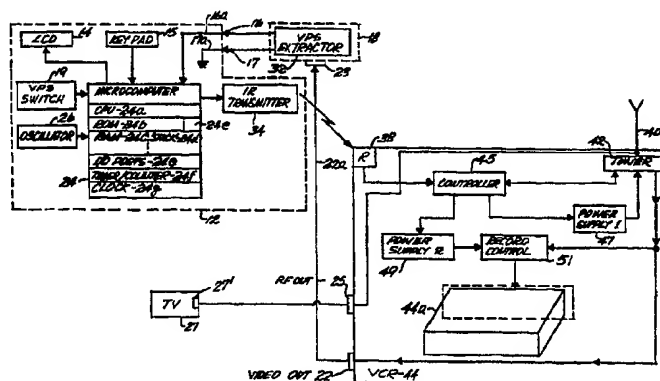




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(54) Title: VPS COMPATIBLE APPARATUS AND METHOD USING COMPRESSED CODES FOR IR CODE SELECTION



## (57) Abstract

An embodiment of the present invention is a method for programming a controller for selection, from a plurality of set of infrared (IR) codes, set of IR codes for subsequent control of IR signal communication with a video cassette recorder (VCR). Each set of IR codes is for communicating with a different corresponding VCR. To this end, each such VCR has a tuner, which, when tuned to an actual channel of broadcast video signals, provides video signals derived from the actual channel to a video output thereof. A signal is provided to the VCR where the signal is predetermined by a selected IR code which is selected from one of the sets of IR codes. This causes the VCR to perform a predetermined operation. The video output of the VCR is monitored for a predetermined signal condition, such as a video signal being present, or for a label broadcast in the video signals. A set of IR codes is then selected for subsequent signal communication with the VCR. The set of IR codes which is selected is the one from which the selected IR code is selected which results in the predetermined signal condition.

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 96/06908

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 H04N5/782

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO,A,93 12612 (YUEN ET AL.) 24 June 1993 see page 28, line 30 - page 30, line 20	1,7,13
A	& US,A,5 307 173 cited in the application	
A	WO,A,94 28676 (MANKOVITZ ET AL.) 8 December 1994 see page 43, line 30 - page 48, line 5; figures 29-35	13
A	WO,A,95 11568 (MANKOVITZ) 27 April 1995 see page 9, line 1 - page 11, line 18; figures 1A,2A,2B	1,7,13
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

19 December 1996

Date of mailing of the international search report

30.12.96

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 96/06908

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y		38,39, 47,52, 53,61, 66,67, 73,78, 80,81,83
A		33-37, 40, 43-46, 48-50, 54, 57-60, 62-65, 69-72, 74-77, 79,84, 85,88-91
X	--- EP,A,0 589 369 (SANYO ELECTRIC CO., LTD) 30 March 1994	33-37, 40, 43-46, 48-50, 54, 57-60, 62-64, 69-72, 74-77, 79,84, 85,88-91
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A	see the whole document	33-40, 43-50, 52-54, 57-64, 66,67, 69, 71-81, 83-85, 88-91
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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 96/06908

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see extra sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 96/ 06908

FURTHER INFORMATION CONTINUED FROM PCT/ISA/210

1. claims 1-13: programming a controller for selection of infra red codes
2. claims 14-32: channel mapping of a video cassette recorder controller
3. claims 33-91: programming of a video cassette recorder controller

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 96/06908

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